

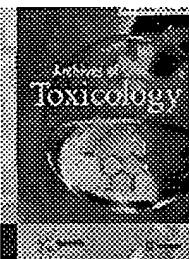
Athens Authentication Point

Recognized as:U.S. Patent & Trademark
Office, Scientific & Technical
(665-54-532)US Patent and Trademark
2006 (911-40-100)**Welcome!**To use the personalized
features of this site, please
[log in or register](#).If you have forgotten your
username or password, we
can [help](#).**My SpringerLink**[Marked Items](#)[Alerts](#)[Order History](#)**Saved Items**[All](#)[Favorites](#)

Content Types Subjects

English

Journal Article



Protective effect of vitamin E on chromium (VI)-induced cytotoxicity and lipid peroxidation in primary cultures of rat Hepatocytes

Journal Archives of Toxicology
 Publisher Springer Berlin / Heidelberg
 ISSN 0340-5761 (Print) 1432-0738 (Online)
 Subject Biomedical and Life Sciences
 Issue Volume 71, Numbers 1-2 / November, 1996
 Category INORGANIC COMPOUNDS
 DOI 10.1007/s002040050353
 Pages 20-24
 Online Date Thursday, February 19, 2004

[Add to marked items](#)[Add to saved items](#)[Recommend this article](#)**Authors**[Find](#)[more options](#)

N. Susa, Shunji Ueno, Yoshinori Furukawa, Masayasu Sugiyama

 ...
 Within this issue Within this journal Within all content[Export this article](#)[Export this article as RIS|Text](#)**Text****PDF**

The size of this document is 168 kilobytes. Although it may be a lengthier download, this is the most authoritative online format.

[Open: Entire document](#)**Abstract**

Pretreatment of primary cultures of rat hepatocytes with α -tocopherol succinate (vitamin E) for 20 h prior to exposure to $K_2Cr_2O_7$ resulted in a marked decrease of chromium (VI)-induced cytotoxicity, as evaluated by the leakage of lactate dehydrogenase, without affecting cellular uptake and subcellular distribution of chromium. The levels of chromium (VI)-induced lipid peroxidation, as monitored by malondialdehyde formation, were also inhibited by pretreatment with the vitamin. Pretreatment with vitamin E normalized the levels of nonenzymatic antioxidants such as glutathione and vitamin C suppressed by dichromate, and caused a distinct accumulation of vitamin E in hepatocytes. However, vitamin E pretreatment did not affect the activities of enzymatic antioxidants including glutathione reductase, superoxide dismutase, and catalase suppressed by dichromate. These results indicate that the protective effect of vitamin E against

chromium (VI)-induced cytotoxicity as well as lipid peroxidation, may be associated more with the level of nonenzymatic antioxidants than the activity of enzymatic antioxidants.

[Frequently asked questions](#) | [General information on journals and books](#) | [Send us your feedback](#)

© Springer. Part of Springer Science+Business Media

[Privacy](#), [Disclaimer](#), [Terms and Conditions](#), [© Copyright Information](#)

Remote Address: 151.207.244.4 • Server: mpweb02
HTTP User Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; .NET CLR 1.1.4322)

Catalogue de documents pour le chercheur

Titre du document / Document title

Nephrotoxic and hepatotoxic effects of trivalent and hexavalent chromium in a teleost fish *Anabas scandens*: enzymological and biochemical changes

Auteur(s) / Author(s)

VENUGOPAL N. B. R. K. (1) ; REDDY S. L. N. ;

Affiliation(s) du ou des auteurs / Author(s) Affiliation(s)

(1) Univ. Hyderabad, school life-sci., Hyderabad 500 134, INDE

Revue / Journal Title

Ecotoxicology and environmental safety (Ecotoxicol. environ. saf.) ISSN 0147-6513 CODEN EESADV

Source / Source

1992, vol. 24, n°3, pp. 287-293 (21 ref.)

Langue / Language

Anglais

Editeur / Publisher

Academic Press, San Diego, CA, ETATS-UNIS (1977) (Revue)

Mots-clés anglais / English Keywords

Chromium ; Heavy metal ; Pollutant ; Water ; Chromium III ; Chromium VI ; Toxicity ; Animal ; Subchronic ; Enzyme ; Kidney ; Liver ; Toxicokinetics ; Cell respiration ; Lactate dehydrogenase ; Succinate dehydrogenase ; Malate dehydrogenase ; Pisces ; Vertebrata ;

Mots-clés français / French Keywords

Chrome ; Métal lourd ; Polluant ; Eau ; Chrome III ; Chrome VI ; Toxicité ; Animal ; Subchronique ; Enzyme ; Rein ; Foie ; Toxicocinétique ; Respiration cellulaire ; Lactate dehydrogenase ; Succinate dehydrogenase ; Malate dehydrogenase ; Anabas scandens ; Pisces ; Vertebrata ;

002b03m03 ;

Mots-clés espagnols / Spanish Keywords

Cromo ; Metal pesado ; Contaminante ; Agua ; Cromo III ; Cromo VI ; Toxicidad ; Animal ; Subcrónico ; Enzima ; Riñón ; Hígado ; Toxicocinética ; Respiración celular ; Lactate dehydrogenase ; Succinate dehydrogenase ; Malate dehydrogenase ; Pisces ; Vertebrata ;

Localisation / Location

INIST-CNRS, Cote INIST : 17753, 35400003831378.0040

Copyright 2006 INIST-CNRS. All rights reserved

Toute reproduction ou diffusion même partielle, par quelque procédé ou sur tout support que ce soit, ne pourra être faite sans l'accord préalable écrit de l'INIST-CNRS.

No part of these records may be reproduced or distributed, in any form or by any means, without the prior written permission of INIST-CNRS.

N° notice refdoc (ud4) : 4544220